

## DEFINITION

A food plot is an annual or perennial planting of grain, legumes, and forbs (wildflowers and some "weeds" such as foxtail, ragweed and smartweeds). Deer, rabbit, quail, pheasant, and a variety of other wildlife found on rural land can benefit from food plots.



## HOW A FOOD PLOT WORKS

A food plot offers wildlife a place to forage for food in late fall, winter and early spring after field crops are harvested. It is left standing over winter to encourage wildlife use. Where fall plowing buries the majority of crop residue, food plots are an excellent choice to encourage wildlife survival. When incorporated with grasses, such as on Conservation Reserve Program (CRP) land, it compliments the grass cover already present.

Food plots *alone* are not good habitat cover. Landowners should strive to provide permanent wildlife habitat for the target species. See NRCS Field Office Technical Guide (FOTG) Standard 645: *Upland Wildlife Habitat Management* for further guidance.

## PLANNING CONSIDERATIONS

### Annual Food Plots

- Consider developing one food plot for every 40 acres of land as a minimum, not to exceed 5% of the total planned acreage.
- Consider making food plots at least 50 feet wide, with a minimum size of  $\frac{1}{4}$  acre. If it is expected that deer will be feeding heavily in the food plot, plant in squares and increase the size to 2-5 acres.
- Food plots planted on the contour are recommended.

- Consider leaving un-harvested grain strips along field edges, adjacent to other cover types.
- Locate food plots within  $\frac{1}{4}$  mile of quality winter cover such as woodland, shrub thickets, cattail marshes, and warm season grass fields.
- To minimize snow accumulation, food plots should be located on the south and east side of permanent winter cover.
- Where permanent cover is not available, consider including a snow-catch area in the plan design, especially in Northern Indiana. See attached *Examples of Annual Food Plot Designs*.
- Consider requesting technical assistance from an NRCS, IDNR, or U.S. Fish and Wildlife Service Biologist through your local SWCD Office.

### Perennial Food Plots

- Consider developing one food plot for every 40 acres of land as a minimum, not to exceed 5% of total planned acreage.
- Consider making food plots at least 50 feet wide, with a minimum size of  $\frac{1}{4}$  acre. If it is expected that deer will be feeding heavily in the food plot, plant in squares and increase the size to 2-5 acres.
- To minimize snow accumulation, food plots should be located on the south and east side of permanent winter cover.
- Consider inter-seeding legumes into existing cool season grass stands (or frost seeding clover into wheat) to provide a needed food source, to add plant diversity, and to attract greater insect populations.
- Consider strip disking existing cool season grass stands to introduce annual plant species.
- Where early successional species such as quail, pheasants, rabbits, and grassland birds are a priority, consider regular, periodic disturbance of the food plot. See FOTG Standard 647: *Early Successional Habitat Development/Management* for guidance.
- Food plots planted on the contour are recommended.
- Consider requesting technical assistance from an NRCS, IDNR, or U.S. Fish and Wildlife Service Biologist through your local SWCD Office.

## SPECIFICATIONS

Site-specific requirements will be listed on the attached specification sheet. Specifications are prepared in accordance with the FOTG Standard 645-*Upland Wildlife Habitat Management*.

### Annual Food Plots

- Food plots will be rotated every year. Plant only 1/3 of the food plot each year. Allow the natural succession of forbs to occur on the remaining 2/3 of the food plot.
- Food plots will be located on the least erosive areas of the field. Adequate vegetative cover must be developed and maintained to provide both wildlife and erosion control benefits.
- Food Plots will be left standing throughout the winter and spring until replanted.
- Plantings will occur early enough to allow species maturity before frost.
- Seeding mixtures for food plots will be chosen from the following *Annual* Food Type tables.

### Perennial Food Plots

- Plantings will occur early enough to allow species maturity before frost.
- Food plots will be located on the least erosive areas of the field. Adequate vegetative cover must be developed and maintained to provide both wildlife and erosion control benefits.
- Seeding mixtures for food plots will be chosen from the following *Perennial* Food Type tables.

| Food Type<br><i>Annual</i> | Seeding Rate<br>(lbs./acre) |                            | Seeding Depth<br>(inches) |
|----------------------------|-----------------------------|----------------------------|---------------------------|
|                            | Single Rate                 | Multiple Rate <sup>1</sup> |                           |
| Buckwheat                  | 20                          | 8                          | 1 - 2                     |
| Corn                       | 15                          | 4                          | ½ - 2                     |
| Cowpeas                    | 20                          | 5                          | ½ - 1                     |
| German/Pearl Millet        | 8                           | 2                          | ½ - 1                     |
| Grain Sorghum (Milo)       | 12                          | 4                          | 1 - 2                     |
| Oats                       | 40                          | 10                         | ¼ - ½                     |
| Partridge Pea              | 10                          | 2                          | 1 - 2                     |
| Soybeans                   | 45                          | 8                          | 1½ - 2                    |
| Sunflowers                 | 12                          | 2                          | 1 - 2                     |
| Wheat                      | 25                          | 10                         | 1 - 2                     |
| White Proso Millet         | 12                          | 4                          | ½ -¾                      |

<sup>1</sup>Total mix not to exceed 20 lbs./acre

| Food Type<br><i>Annual</i> | Recommended Planting Dates |
|----------------------------|----------------------------|
| Buckwheat                  | June 15 - July 15          |
| Corn                       | Apr. 25 - June 1           |
| Cowpeas                    | May 1 - July 1             |
| German/Pearl Millet        | May 1 - June 1             |
| Grain Sorghum (Milo)       | May 1 - July 15            |
| Oats                       | March 1 - Apr. 15          |
| Partridge Pea              | May 1 - June 1             |
| Soybeans                   | May 1 - July 1             |
| Sunflowers                 | May 1 - July 1             |
| Wheat                      | Sept. 15-Oct. 30           |
| White Proso Millet         | May 1 - June 1             |

| Food Type<br><i>Perennial</i>                  | Seeding Rate<br>(lbs./acre) | Seeding Depth<br>(inches) | Planting Dates                           |
|--|-----------------------------|---------------------------|--|
| Alfalfa  | 6                           | ¼ - ½                     | Mar. 1 - May 1<br>or<br>Aug. 1 - Sept. 1 |
| Alsike Clover                                  | 2                           | ¼ - ½                     | Jan. 1 - May 1<br>or<br>Aug. 1 - Sept. 1 |
| Ladino Clover                                  | 1                           | ¼ - ½                     | Jan. 1 - May 1<br>or<br>Aug. 1 - Sept. 1 |
| Red Clover                                     | 5                           | ¼ - ½                     | Jan. 1 - May 1<br>or<br>Aug. 1 - Sept. 1 |
| Common, Kobe, or Marion Lespedeza <sup>1</sup> | 5                           | ¼ - ½                     | Feb. 1 - May 1                           |

<sup>1</sup> Annuals that will maintain themselves by re-seeding for several years. Best suited for sites south of Interstate 70.

## EXAMPLE FOOD PLOT SIZES

| Acres | Length | Width | Ft. <sup>2</sup> |
|-------|--------|-------|------------------|
| ¼     | 363    | 30    | 10,890           |
| ½     | 363    | 60    | 21,780           |
| 1     | 545    | 80    | 43,560           |
| 3     | 1,307  | 100   | 130,680          |
| 5     | 1,089  | 200   | 217,800          |

## RECOMMENDED SUITABILITY

### *Annual Food Plots*

- Primarily target upland game birds and deer.
- Mainly function to establish safe winter foraging areas that restrict unnecessary movement and to provide a dependable winter food source to carry game through the winter.

### *Perennial Food Plots*

- Primarily target deer, quail, turkey, pheasant, Ruffed Grouse, rabbits, and songbirds.
- Mainly function to provide open space and foraging areas.

## FERTILIZER AND LIME CONSIDERATIONS

### *Annual Food Plots*

- Adequate nutrient and pH conditions will assure good seed head and stalk development.
- To determine the need for commercial fertilizer and liming materials, a soil test from the current planting year or during the previous two years is recommended.
- The rate of application of commercial fertilizer will be from 75-100% of Purdue University's recommended rate per acre of each nutrient for the species being established for the lowest yield goal. See Extension Bulletin E-2567, Rep. August 1996, *Tri-State Fertilizer Recommendation*. If a soil test is not available, apply 200 lbs. of 12-12-12, or equivalent, per acre.

### *Perennial Food Plots*

- To determine the need for liming materials, a soil test from the current planting year or during the previous two years is recommended for perennial food plots. The recommended rate per acre of liming materials, as recommended in the soil test for the crop seeded, shall be used.
- Under normal circumstances, the recommended perennial species do not need to be fertilized.
- Before seeding, inoculate the legume seed with the appropriate inoculant for the species. Pre-inoculated seed may be used, but shall be re-inoculated if used beyond dates specified on the inoculant tag.

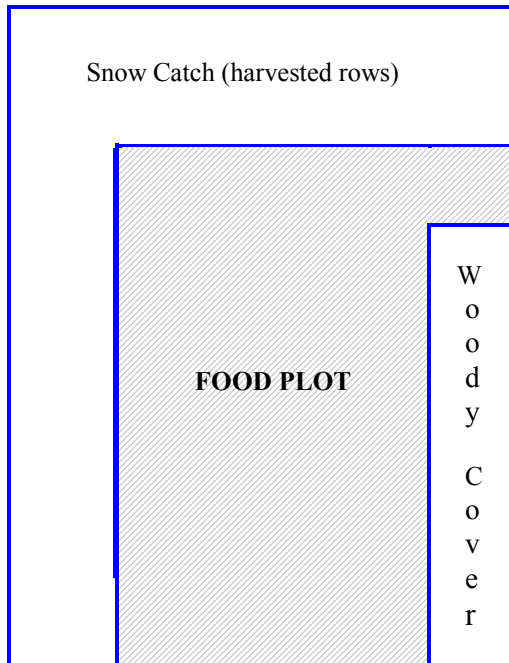


## OPERATION AND MAINTENANCE

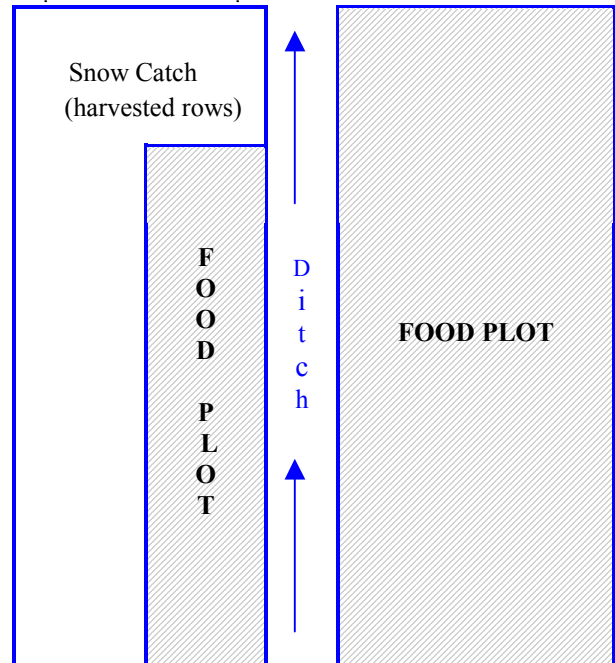
1. General weed control is not required as the presence of some forbs (such as foxtail, smartweeds and ragweed) actually benefit wildlife by providing higher protein and greater number of seeds than domestic grains.
2. Protect the acres from unplanned haying and grazing. Fences may need to be constructed and maintained to exclude livestock.
3. Measures will be taken to control severe outbreaks of noxious plants, such as Johnsongrass, Canada Thistle and other invasive species in order to comply with state and local noxious weed laws.
4. All herbicide label requirements and applicable state and federal regulations will be followed.
5. Spraying or other control of invasive species and noxious plants will be done on a "spot" basis to protect forbs and legumes that benefit native pollinators and other wildlife.
6. On perennial food plots, management practices and activities will not disturb cover during the primary nesting period for grassland species of March 1 through July 15. Mowing, however, may be needed during the plant establishment period to control weeds.
7. Perennial food plots generally will not persist beyond 5-6 years. Manage perennial vegetation every 3-5 years after adequate vegetative establishment. Management may include one or more of the following options: (1) mowing with residue removed or spread evenly across the field, (2) light disking, (3) top dressing with fertilizer (P at 40 lbs/ac and K at 60 lbs/ac), or (4) re-establishment. Management activities, which substantially disturb the vegetative cover, should take place prior to March 1, or between July 15 and August 15.

## EXAMPLES OF ANNUAL FOOD PLOT DESIGNS

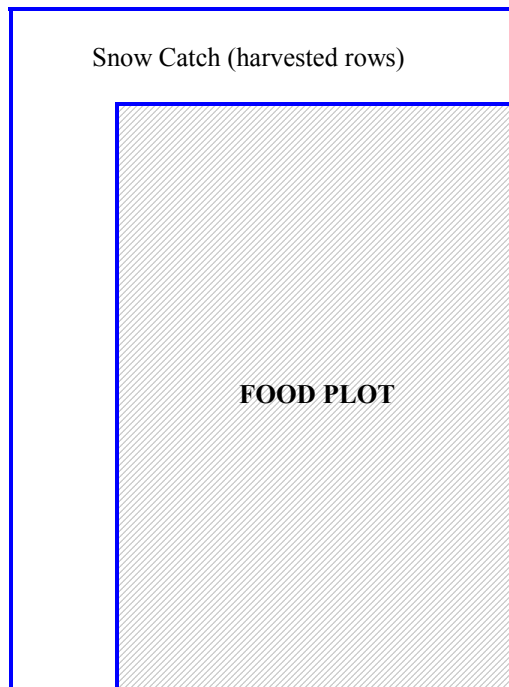
(The diagrams are designed to provide prevailing wind protection; the top of each diagram faces North.)



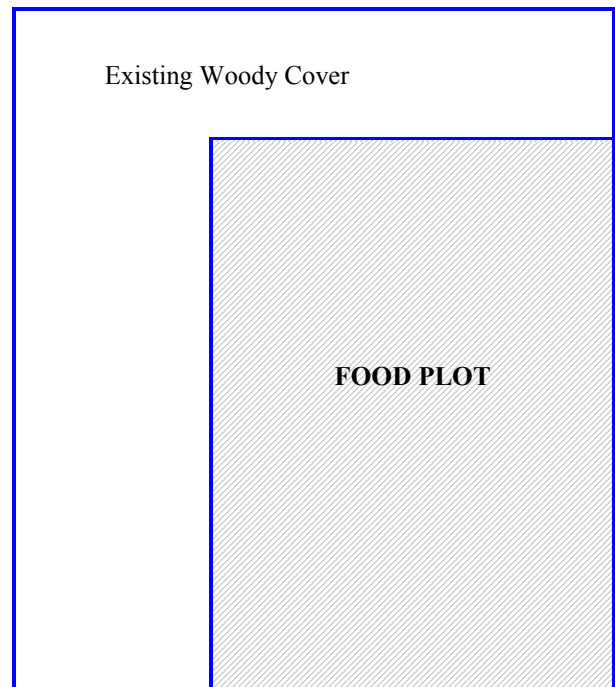
A. Food plot designed to protect existing winter (woody) cover.



B. Food plots designed to enhance drainage ditch.



C. Food plot designed to function alone.



D. Food plot designed to utilize existing woody cover as protection from prevailing winds.

## Wildlife Food Plot - Specifications Sheet

NAME: \_\_\_\_\_

FIELD NUMBER: \_\_\_\_\_

COUNTY: \_\_\_\_\_

DATE: \_\_\_\_\_

TRACT NUMBER: \_\_\_\_\_

ASSISTED BY: \_\_\_\_\_

CONCURRENCE OF IDNR DISTRICT BIOLOGIST (recommended): \_\_\_\_\_

| Species | Variety | Seeding Rate<br>Bulk lbs./ac.<br>(1) | Acres to be<br>seeded<br>(2) | Total bulk<br>pounds needed<br>(1x2) |
|---------|---------|--------------------------------------|------------------------------|--------------------------------------|
|         |         |                                      |                              |                                      |
|         |         |                                      |                              |                                      |
|         |         |                                      |                              |                                      |
|         |         |                                      |                              |                                      |

### Specific Recommendations

Scheduled Date: \_\_\_\_\_

Seeding Dates: \_\_\_\_\_

Companion Crop: \_\_\_\_\_

Seedbed Preparation Method: \_\_\_\_\_

Lime - Fertilizer Recommendations: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Prior Herbicide Use:

Type: \_\_\_\_\_

Year: \_\_\_\_\_

Type: \_\_\_\_\_

Year: \_\_\_\_\_

Note: Plant corn or sorghum on fields where Atrazine carryover may be a problem.

Additional Operation and Maintenance: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**September 2002**

The United States Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202)720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.